

WHAT IS CLAIMED IS:

1. A method of removing oxygen from a container having a product and a high moisture environment and wherein oxygen was previously flushed out and replaced by a gas containing carbon dioxide and wherein some oxygen may have remained and into which additional oxygen may have entered and which exists as a relatively small percentage of the total volume of carbon dioxide and oxygen comprising the steps of providing a container, placing a product into said container, flushing the container with carbon dioxide to remove other gases from said container, and providing in said container a mixture of an oxygen-absorbing component, a carbon-generating component, an acidifying component, and a dry water-attracting component for attracting moisture from the high moisture environment to thereby activate said oxygen-absorbing component to absorb said additional oxygen and also activate said acidifying component to combine with said carbon dioxide releasing component to cause it to release carbon dioxide.
2. A method as set forth in claim 1 wherein said dry water attracting component contains less than about 2% moisture by weight.
3. A method as set forth in claim 1 wherein said dry water attracting component contains less than about 3% moisture by weight.
4. A method as set forth in claim 1 wherein said dry water attracting component contains less than about 5% moisture by weight.

5. A method as set forth in claim 1 wherein said oxygen-absorbing component comprises particulate iron in an amount of between about 25% and 35% by weight and wherein said dry water-attracting component comprises between about 10% and 25% by weight.

6. A method as set forth in claim 1 wherein said oxygen-absorbing component comprises particulate iron in an amount of between about 20% and 40% by weight and wherein said dry water-attracting component comprises between about 4% and 30% by weight.

7. A method as set forth in claim 1 wherein said oxygen-absorbing component comprises particulate iron in an amount of between about 15% and 60% by weight and wherein said dry water-attracting component comprises between about 1% and 70% by weight.

8. A method as set forth in claim 1 wherein said dry water-attracting component is silica gel.

9. A method as set forth in claim 8 wherein said silica gel is present by weight in an amount of between about 1% and 70%.

10. A method as set forth in claim 8 wherein said silica gel is present by weight in an amount of between about 4% and 30%.

11. A method as set forth in claim 8 wherein said silica gel is present by weight in an amount of between about 10% and 25%.

12. A method as set forth in claim 1 wherein said dry moisture attracting component is selected from the group consisting of silica gel, diatomaceous earth, perlite, zeolite, activated alumina, activated carbon, sand, salt, activated clay, molecular sieve, and cellulose or other natural polymers.

13. A method as set forth in claim 12 wherein said oxygen-absorbing component is selected from the group consisting of particulate iron II, iron II sulfate, iron II oxide, iron II carbide, and iron carbonyl.

14. A method as set forth in claim 1 wherein said oxygen-absorbing component is selected from the group consisting of particulate iron II, iron II sulfate, iron II oxide, iron II carbide, and iron carbonyl.

15. A method as set forth in claim 1 wherein said oxygen-absorbing component is present by weight in an amount of between about 15% and 60%, and wherein said carbon dioxide generating component is present by weight in an amount of between about 5% and 50%, and wherein said acidifying component is present by weight in an amount of between about 10% and 60%, and wherein said dry water-attracting component is present by weight in the amount of between about 1% and 70%.

16. A method as set forth in claim 15 wherein said oxygen-absorbing component is present by weight in an amount of between about 20% and 40%, and wherein said carbon dioxide generating component is present by weight in an amount of between about 8% and 39%, and wherein said acidifying component is present by weight in an amount of between about 20% and 45%, and wherein said dry water-attracting component is present by weight in the amount of between about 4% and 30%.

17. A method as set forth in claim 15 wherein said oxygen-absorbing component is present by weight in an amount of between about 25% and 35%, and wherein said carbon dioxide generating component is present by weight in an amount of between about 15% and 22%, and wherein said acidifying component is present by weight in an amount of between about 27% and 40%, and wherein said dry water-attracting component is present by weight in the amount of between about 10% and 25%.

18. A method as set forth in claim 1 wherein said carbon dioxide after flushing is present in an amount of at least 20% with the remaining atmosphere in the container having less than about 17% oxygen and wherein said oxygen-absorbing component is present by weight in an amount of between about 15% and 60%, and wherein said carbon dioxide generating component is present by weight in an amount of between about 5% and 50%, and wherein said acidifying component is present by weight in an amount of between about 10% and 60%, and wherein said dry water-attracting component is present by weight in the amount of between about 1% and 70%.

19. A method as set forth in claim 1 wherein said carbon dioxide after flushing is present in an amount of at least 20% with the remaining atmosphere in the container having less than about 17% oxygen and wherein said oxygen-absorbing component is present by weight in an amount of between about 20% and 40%, and wherein said carbon dioxide generating component is present by weight in an amount of between about 8% and 39%, and wherein said acidifying component is present by weight in an amount of between about 20% and 45%, and wherein said dry water-attracting component is present by weight in the amount of between about 4% and 30%.

20. A method as set forth in claim 1 wherein said carbon dioxide after flushing is present in an amount of at least 20% with the remaining atmosphere in the container having less than about 17% oxygen and wherein said oxygen-absorbing component is present by weight in an amount of between about 25% and 35%, and wherein said carbon dioxide generating component is present by weight in an amount of between about 15% and 22%, and wherein said acidifying component is present by weight in an amount of between about 27% and 40%, and wherein said dry water-attracting component is present by weight in the amount of between about 10% and 25%.

21. A composition for absorbing oxygen and releasing carbon dioxide in a high moisture environment comprising by weight an iron-based component in an amount of between about 15% and 60%, a carbon dioxide releasing component in an amount of between about 8% and 50%, an acidifying component, and a dry water-attracting component for attracting moisture from the high moisture environment to thereby activate the iron-based component to absorb oxygen and also activate the acidifying component to combine with said carbon dioxide releasing component to cause it to release carbon dioxide.
22. A composition as set forth in claim 21 wherein said iron-based component is present in an amount of between about 20% and 40% and wherein said dry water-attracting component is present in an amount of between about 10% and 39%.
23. A composition as set forth in claim 21 wherein said iron-based component is present in an amount of between about 25% and 35% and wherein said dry water-attracting component is present in an amount of between about 15% and 22%.
24. A composition as set forth in claim 21 wherein said dry moisture-attracting component is selected from the group consisting of silica gel, diatomaceous earth, perlite, zeolite, activated alumina, activated carbon, activated clay, molecular sieve, and cellulose.
25. A composition as set forth in claim 24 wherein said iron-based component is selected from the group consisting of particulate iron II, iron II sulfate, iron II oxide, iron II carbide, and iron carbonyl.

26. A composition as set forth in claim 21 wherein said iron-based component is selected from the group consisting of particulate iron II, iron II sulfate, iron II oxide, iron II carbide, and iron carbonyl.

27. A composition as set forth in claim 21 wherein said dry water-attracting component is present by weight in an amount of between about 1% and 70%.

28. A composition as set forth in claim 22 wherein said dry water-attracting component is present by weight in an amount of between about 4% and 30%.

29. A composition as set forth in claim 23 wherein said dry water-attracting component is present by weight in an amount of between about 10% and 25%.